

## SEEDING COOL SEASON GRASSES----TIME OF YEAR!

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It has long been suggested that early fall is the most successful time for seeding cool season grasses. Even with the availability of irrigation, improved cultivars, no-till, seed priming, etc., the success of fall seedings far exceed other seasons. However, because seed establishment is sometimes successful anytime of year, one must evaluate the risks involved when seeding off-season. Consider the following:

### MID AUGUST — MID OCTOBER

This is usually the **best seeding season**. Although this is normally the driest period of the year, most other establishment risks are minimal. Germination is much faster when the soil is warmest, therefore, seedings made in October will take longer to germinate and seedling vigor will be slower than when seeding in August and September. Slow germinating grasses such as Ky bluegrass are much more successful during the early part of this preferred seeding season.

### MID OCTOBER — DECEMBER

Kentucky often has some very mild weather during this season, and some germination and seedling growth may occur. Unfortunately, an occasional sudden freeze can kill succulent seedlings that have not hardened off during cold spells. Even if young grass survives winter freezes, it often heaves out of the ground in late winter/early spring as we get alternating cold and warm periods. One can prevent this by aggressively rolling the surface with a heavy roller, but that is difficult because the soil is often so wet that you risk rutting the surface.

During this period we can encourage germination and growth by using synthetic grow-covers, such as those used on tobacco beds. However this is only practical for relatively small areas. Sometimes these covers may be left on the surface all winter in order to help reduce desiccation during the period when irrigation is not feasible.

### DECEMBER — MID FEBRUARY

Seedings made after December 1 can be considered **dormant seeding**, i.e. the seed should not germinate until early spring. Dormant seedings can be very effective if you do not get surface disturbance by birds, wind, erosion, water runoff, etc. Cold winter weather does not kill ungerminated seed. It is typical for dormant, late winter or early spring seedings to begin a 'slow' germination process about the last week or two weeks in March. Therefore, seedings made during December through early March all germinate about the same time.

## MID FEBRUARY AND MARCH

This is usually the **second most successful** time of year to seed. Soil moisture is often good but because soil temperature is usually low, germination is very slow. After germination, however, seedling growth is usually very fast. Conventional seeding on a prepared seedbed is much more successful than slit (no-till) seeding into an undisturbed sod. This is most likely a function of the sod keeping the soil temperature much colder, for a longer period of time.

## APRIL AND MAY

Mid- to late-spring seeding increase the risk of crabgrass competition, poor root growth prior to hot weather, disease damage, etc. For most spring seasons in Kentucky, it is very difficult to get the soil dry enough to prepare a seedbed. If you must stockpile or move topsoil, prepare the sub-grade, replace the topsoil, allow time and moisture cycles for settling of the surface, incorporate fertilizer and prepare final seedbed, it is very difficult to get this accomplished during our typical windy and rainy spring seasons. Moving or working wet soil causes unrepairable damage to the soil structure and tilth. Also, because of potential damage to seedlings, most crabgrass control herbicides cannot be used to prevent weed competition.

## JUNE TO MID AUGUST

Summer seedings are **seldom successful** because of periods of drought, extreme heat, crabgrass competition, extreme disease pressure, etc. Although proper irrigation may eliminate the risk of drought, irrigation typically increases other 'risks' such as disease, crabgrass invasion , etc.

## TIME REQUIRED FOR GERMINATION

Under optimum conditions the germination time for cool season grasses is generally listed as 15 to 21 days for Ky bluegrass, 7-10 days for tall fescue, 5 -7 days for perennial ryegrass and 5 -7 days for creeping bentgrass. However this time can be greatly extended when:

- surface soil moisture is very lacking, or even when there are periods of wet/dry conditions.
- when the surface soil temperature remains cold.
- when old seed or poor quality seed is used.
- when new seed, harvested in the summer, is used for a late summer seeding. This seed may have a short term dormancy factor that will slow down germination for several weeks.